

Message

From: Nwosu, Bernard [Ben.Nwosu@WestonSolutions.com]
Sent: 3/24/2016 1:55:31 PM
To: Nguyen, Lyndsey [Nguyen.Lyndsey@epa.gov]; Gaughan, Daniel [Gaughan.Daniel@epa.gov]; Benton, Tim [Tim.Benton@WestonSolutions.com]
Subject: RE: Proposed Sampling and CRU Action Levels
Attachments: AdditionalAssessment_CRU_16March2016.pdf

Good morning Dan,

Based on the attached proposed sampling locations worksheet, we will be sampling 19 location as follows:
13 locations to 4 feet, 1 foot sampling interval = 4 samples per location. Total = 52 samples
6 locations to 8 feet, 1 foot sampling interval = 8 samples per location. Total = 48 samples

Grand total = 100 samples.
Duplicate samples at 1 per 20 samples = 5 samples
Aqueous Rinsate samples at 1 per day = 5 samples

Analytical Procurement will be for 105 soil samples and 5 aqueous rinsate samples.

I will send you the analytical request forms for your approval.

Please let me know if you have any comments or questions.

Thanks,

Ben Nwosu
Weston Solutions, Inc.
RST3/ED2

From: Nguyen, Lyndsey [mailto:Nguyen.Lyndsey@epa.gov]
Sent: Wednesday, March 16, 2016 4:37 PM
To: Nwosu, Bernard ; Gaughan, Daniel ; Benton, Tim
Subject: Proposed Sampling and CRU Action Levels

Attached is an updated proposed sampling description with the depths for each sampling location (4ft vs. 8ft instead of 4ft vs. >4ft).

Below are the PRGs for each specific radionuclides of interest for CRU. The ones asterisked (*) indicate that these radionuclides are included in the parent radionuclides PRG due to secular equilibrium. To determine if the PRGs were exceeded for the progenies already incorporated into the parent radionuclide PRG, I recalculated a more conservative number for the progenies listed in our data so there was a distinct number for each radionuclide listed. The following list are the action limits for each radionuclide:

Isotope	PRG (pCi/g)
Th-228	13300
Th-230	2060
Ra-228*	16.1
Th-232+D	5.11

U-233/234	3260
U-235/236	37.7
U-238	3650
Ra-226+D	2.52
Ac-228*	128000
Bi-212+D	6440000
Bi-214*	1310000
Cs-137	11.2
K-40	26.7
Pb-210	418
Pb-212	657000
Pb-214*	7330000
Tl-208	3400000

+D indicates progenies included in the calculation for the parent radionuclide

Lyndsey
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